

IN THE CLAIMS:

Please cancel claim 36 and amend the claims as follows:

1-21. (Cancelled)

22. (Currently Amended) A method for processing a substrate, comprising:
depositing an electrically conductive seed layer onto a substrate;
immersing the substrate into a plating solution; and
plating metal ions from the plating solution onto the substrate ~~during the while~~
immersing the substrate ~~process~~ by applying a plating bias to the substrate at a charge
density between about 20 mA*sec/cm² and about 160 mA*sec/cm².

22. (Currently Amended) The method of claim 22, wherein applying a plating
bias to the substrate comprises applying a bias between about 0.8 volts and about 20
volts for a period of time sufficient to compensate for etching of the seed layer by the
plating solution ~~during the while~~ immersing the substrate ~~process~~.

23. (Currently Amended) The method of claim 23, wherein the plating bias is
applied between about 0.1 seconds and about 4 seconds.

24. (Previously Presented) The method of claim 22, wherein plating metal ions
from the plating solution comprises plating a layer of metal ions onto the seed layer,
wherein the layer of metal ions has a thickness of between about 50Å and about 250Å.

25. (Previously Presented) The method of claim 22, wherein the metal ions
comprise at least one of copper, nickel, and tungsten.

26. (Currently Amended) The method of claim 22, wherein ~~the~~ applying the
plating a bias to the substrate surface comprises applying an increasing plating bias to
the substrate ~~during the while~~ immersing the substrate ~~process~~.

Page 2

201936_1

27. (Currently Amended) The method of claim 22, wherein ~~the~~ applying the plating a bias to the substrate surface comprises applying a pulse modulated plating bias to the substrate during the while immersing the substrate process.

28. (Previously Presented) The method of claim 22, wherein plating metal ions from the plating solution comprises plating an alloy layer onto the seed layer.

29. (Currently Amended) A method for electrochemically plating a ~~first~~ metal layer onto a substrate surface having high aspect ratio features formed thereon, comprising:

depositing a seed layer over the substrate surface and features;

immersing the substrate surface ~~and features~~ into an electrochemical plating solution; and

applying a plating bias at a charge density of between about 20 mA*sec/cm² and about 160 mA*sec/cm² during the while immersing the substrate surface process to deposit a first metal layer on the seed layer.

30. (Currently Amended) The method of claim 29, wherein applying the plating a bias comprises applying an increasing plating bias to the substrate during the while immersing the substrate process or applying a pulse modulated plating bias to the substrate during the while immersing the substrate surface process.

31. (Currently Amended) The method of claim 29, wherein the plating bias is applied for a duration of between about 0.5 seconds and about 2 seconds.

32. (Currently Amended) The method of claim 29, wherein applying the plating a bias comprises applying a bias between about 0.8 volts and about 20 volts to the seed layer for a period of time between about 0.1 second and about 4.0 seconds during the while immersing the substrate surface process.

33. (Currently Amended) The method of claim 29, further comprising plating a second metal layer over the first metal seed layer via an electrochemical plating process after the seed layer is fully immersed in the electrochemical plating solution.

34. (Currently Amended) The method of claim [[29]] 33, wherein the first metal layer is a metal alloy layer.

35. (Currently Amended) A method for electrochemically plating immersing a substrate into a plating solution, comprising immersing the substrate into the a plating solution while simultaneously applying a charge density of between about 20 mA*sec/cm² and about 160 mA*sec/cm², wherein the charge density is applied by applying a bias between about 0.8 volts and about 20 volts to the substrate for a period of between about 0.1 seconds and about 4 seconds.

36. (Cancelled)

37. (Currently Amended) The method of claim 35, wherein the ~~plating~~ bias causes the deposition of a patching layer over a seed layer formed onto the substrate ~~during the while immersing the substrate process.~~

38. (Previously Presented) The method of claim 37, wherein the patching layer comprises a metal alloy layer.